**IT Applications Unit 3, AOS 1, Online Communities**

Complete the following, from Chapter 2, Problem-solving Methodology, pgs, 60-80

**Problem-solving Methodology: 4 Stages**

**Analyse**

**Design**

**Development**

**Evaluate**

**Case Study:**

**Indigenous Language Trust, (ILT)**

Using the case study, ILT complete the following:

**Analysis of the problem**

This stage involves the following three steps:

1. **Determining the solution requirements**
2. What needs to be established?

A website needs to be constructed that would support information exchange between offices.

1. How is the problem best defined?

The problem is best defined by posing a question that when met answers all the needs of the organisation and solving the problem.

1. The aim of problem analysis is to ensure that the problem is clear enough to effectively analyse it and efficiently solve it. Define these two terms, efficiency and effectiveness.

Efficiency refers to the time, cost and effort that might be put into producing a solution. A solution can be inefficient in the way it was produced, but effective in the way it communicates information.

Effectiveness can be defined by the quality, relevancy, timeliness and clarity of the solution. A solution can be produced effectively but then be inefficient in the way it communicates information.

1. What type of organisation is the ILT?

The ILT is a trust organisation that deals in the conservation of the native aboriginal language.

1. In your own words, define the problem for ILT.

The ILT has been set up to begin conserving native language, but the offices in the different states need to be able to exchange their data so that they have a more complete database.

1. Identifying data and information needed for the solution, p 62;
   1. Need to identify where data is coming from for online community – inside or outside

Information needs to come from both inside and outside the organisation.

* 1. In the ILT case study what is the information needed for the solution?

Part of the information comes from within the organisation such as policy documents, and other parts need to come from outside the organisation, such as local Indigenous history.

1. Identifying the functions needed for the online community solution, p 63

The functions needed for online communities can be separated into 2 distinct categories,

List the characteristics of each of these.

* + how the solution functions

Do we need to broadcast information, exchange information or store it in a central location?

* + Attributes of the solution.

How user friendly, reliable, portable and robust the solution and who is going to maintain the different sectors.

1. What are the functions of the ILT website solution?

To broadcast information to the community about events, etc. to exchange data between offices, to encourage community groups to exchange information, to store documents containing the knowledge in a central secure environment

1. **Identify the constraints on the solution, p 64**
   1. List the technical and non-technical constraints.

Technical restraints include the cost, the speed or time that it takes to exchange data, how secure the solution needs to be and how wide the bandwidth needs to be to accommodate online users. Non-technical restraints include Privacy, Copyright and protection of Human Rights

* 1. What are the constraints on the ILT solution?

Determining the amount of people using the site, as well as the protection of sensitive information and images, particularly of deceased aboriginals and the use of their names.

1. **Determine the scope of the solution, p 66**
   1. What needs to be considered in the scope of the solution?

Needs to carefully consider the benefits the solution will have on the efficiency and effectiveness within the organisation, in terms of what it actually has to do.

* 1. In the ILT case study list the benefits or the scope of the solution in terms of
     1. Efficiency

Time, reduced time to access and exchange information, cost, reduced cost as well as in different offices can access information centrally, effort, less effort as personalised in each office can build on information they already have rather than having to rediscover it.

* + 1. Effectiveness

Improved quality of decision making due to collaborative nature of information exchange, relevancy and timeliness, information broadcasted to the public in this, completeness, information compiled using collaborative tools by online communities will be more complete